Contents

Number 1, July 1995

1 Microbiological profile in Serra ewes' cheese during ripening
A. C. MACEDO, F. X. MALCATA & T. A. HOGG

12 Phenotypic and molecular characteristics of *Aeromonas salmonicida* subsp. *salmonicida* isolated in Southern and Northern Finland
M.-L. HÄNNINEN, J. RIDELL & V. HIRVELÄ-KOSKI

22 Identification of proteolytic rumen bacteria isolated from New Zealand cattle
G. T. ATTWOOD & K. REILLY

30 Exopolysaccharide production on low-grade maple sap by *Enterobacter agglomerans* grown in small scale bioreactors
A. MORIN, M. HECKERT, E. POITRAS, D. LEBLANC, F. BRION & C. MORESOLI

38 *Pseudomonas tolaasii* control by kasugamycin in cultivated mushrooms (*Agaricus bisporus*)
F. P. GEELS

43 Identification of *Leuconostoc oenos* from South African fortified wines by numerical analysis of total soluble cell protein patterns and DNA–DNA hybridizations
L. M. T. DICKS, P. A. LOUBSER & O. P. H. AUGUSTYN

49 Genome analysis of five soil bacterial isolates named formerly *Enterobacter agglomerans*
E. EVGUENIEVA-HACKENBERG & S. SELENSKA-POBELL

61 Comparative study on cell envelope-associated proteinases in natural isolates of mesophilic lactobacilli
M. KOJIC, D. FIRA, B. BOJOVIC, A. BANINA & L. TOPISIROVIC

69 The differentiation of *Staphylococcus aureus* from other Micrococcaceae isolated from bovine mammary glands
T. J. G. M. LAM, A. PENGOV, Y. H. SCHUKKEN, J. A. H. SMIT & A. BRAND

73 Diversity of cellulolytic bacteria in landfill
K. WESTLAKE, D. B. ARCHER & D. R. BOONE

79 Purification and properties of an alcohol dehydrogenase (HUADHII) from *Hanseniaspora uvarum* K_5
C. VENTURIN, J. ZULAIKA, H. BOZE, G. MOULIN & P. GALZY

87 A simple *in vitro* model for growth control of bacterial biofilms
A. E. HODGSON, S. M. NELSON, M. R. W. BROWN & P. GILBERT

94 Characterization of mucoid *Pseudomonas aeruginosa* strains isolated from technical water systems
S. GROBE, J. WINGENDER & H. G. TRÜPER

103 Production of extracellular polysaccharides by *Lactobacillus delbrueckii* ssp. *bulgaricus* NCFB 2772 grown in a chemically defined medium
G. J. GROBBEN, J. SIKKEMA, M. R. SMITH & J. A. M. DE BONT

108 Rational development of a simple synthetic medium for the sustained growth of *Lactococcus lactis*
M. COCAIGN-BOUSQUET, C. GARRIGUES, L. NOVAK, N. D. LINDLEY & P. LOUBIERE

Number 2, August 1995

117 Degradation and fermentation of α-gluco-oligosaccharides by bacterial strains from human colon : *in vitro* and *in vivo* studies in gnotobiotic rats
Z. DJOUZI, C. ANDRIEUX, V. PELENC, S. SOMARRIBA, F. POPOT, F. PAUL, P. MONSAN & O. SZYLIT

128 The effect of transient temperatures on the growth of *Salmonella typhimurium* LT2.II : excursions outside the growth region
G. A. MITCHELL, T. F. BROCKLEHURST, R. PARKER & A. C. SMITH

135 The interaction of trimethoprim and quinolones against Gram-negative fish pathogens
V. INGLIS, M. CAFINI & T. YOSHIDA

141 The relationship between ecophysiology, indigenous microflora and growth of *Listeria monocytogenes* in grass silage
A. S. DONALD, D. R. FENLON & B. SEDDON

149 Resistance to quaternary ammonium compounds in *Staphylococcus* spp. isolated from the food industry and nucleotide sequence of the resistance plasmid pST827
E. HEIR, G. SUNDHEIM & A. L. HOLCK

157 Immobilizaiton of β-amylase from *Bacillus megaterium* B_6 into gelatin film by cross-linking
R. R. RAY, S. C. JANA & G. NANDA

163 Expanded response surface model for predicting the effects of temperatures, pH, sodium chloride contents and sodium nitrite concentrations on the growth rate of *Yersinia enterocolitica*
S. BHADURI, R. L. BUCHANAN & J. G. PHILLIPS

171 The effects of glucosinolates and their hydrolysis products on microbial growth
A. D. BRABBAN & C. EDWARDS

178 Identification of enterohaemorrhagic *Escherichia coli* by means of their production of enterohaemolysin
K. A. BETTELHEIM

181 RAPD analysis of *Aeromonas salmonicida* and *Aeromonas hydrophila*
M. MIYATA, T. AOKI, V. INGLIS, T. YOSHIDA & M. ENDO

186 Surface components of shigellae involved in adhesion and haemagglutination
M. A. HAQUE, F. QADRI, K. OHKI & O. KOHASHI

195 Multiplex riboprobes for the detection of virulent *Yersinia enterocolitica* and simple methods for their preparation
I. FLISS, B. W. BLAIS, R. HOLLEY & R. E. SIMARD

203 Thermostable dextranases: screening, detection and preliminary characterization
C. V. A. WYNTER, C. F. GALEA, L. M. COX, M. W. DAWSON, B. K. PATEL, S. HAMILTON, J. DE JERSEY & P. A. INKERMAN

213 Factors affecting the electroporation of *Bacillus subtilis*
I. R. McDONALD, P. W. RILEY, R. J. SHARP & A. J. McCARTHY

219 Polar lipids of *Staphylococcus* strains analysed by fast atom bombardment mass spectrometry
D. B. DRUCKER & N. ABDULLAH

225 Isolation of a bacterium that causes anaaki disease of the red algae *Porphyra yezoensis*
M. SUNAIRI, H. TSUCHIYA, T. TSUCHIYA, Y. OMURA, Y. KOYANAGI, M. OZAWA, N. IWABUCHI, H. MUROOKA & M. NAKAJIMA

230 Development of intestinal lactobacilli in normal piglets
S. NAITO, H. HAYASHIDANI, K. KANEKO, M. OGAWA & Y. BENNO

Number 3, September 1995

237 Plasmid formation and its relation to the formation of spontaneously developing pocks in *Streptomyces azureus* ATCC 14921
K. DOI, M. C. SAEKI, Y. ONO & S. OGATA

244 The electrostatic nature of the spore of *Pasteuria penetrans*, the bacterial parasite of root-knot nematodes
P. AFOLABI, K. G. DAVIES & P. S. O'SHEA

250 The role of *Bacillus* species in the fermentation of cassava
W. K. A. AMOA-AWUA & M. JAKOBSEN

257 *In situ* characterization of *Clostridium botulinum* neurotoxin synthesis and export
J. E. CALL, P. H. COOKE & A. J. MILLER

264 Multiplex polymerase chain reaction to detect toxigenic *Vibrio cholerae* and to biotype *Vibrio cholerae* O1
Y. H. SHANGKUAN, Y. S. SHOW & T. M. WANG

274 The effect of osmotic shock and subsequent adaptation on the thermotolerance and cell morphology of *Listeria monocytogenes*
F. JØRGENSEN, P. J. STEPHENS & S. KNØCHEL

282 Ketocarotenoids in halobacteria: 3-hydroxy-echinenone and *trans*-astaxanthin
P. CALO, T. DE MIGUEL, C. SIEIRO, J. B. VELAZQUEZ & T. G. VILLA

286 Penner serotyping of *Campylobacter* isolates from poultry, with absorbed pooled antisera
W. F. JACOBS-REITSMA, H. M. E. MAAS & W. H. JANSEN

292 Significance of bile salt hydrolytic activities of lactobacilli
I. DE SMET, L. VAN HOORDE, M. VANDE WOESTYNE, H. CHRISTIAENS & W. VERSTRAETE

302 Amino acid requirements and peptidase activities of *Streptococcus salivarius* subsp. *thermophilus*
E. NEVIANI, G. GIRAFFA, A. BRIZZI & D. CARMINATI

308 Quality control of membrane filters for bacteriological examination of water
J. F. SCHIJVEN, Y. C. DROST, H. CASTELIJNS & C. VAN DER LIST

314 The effect of cryptolepine on the morphology and survival of *Escherichia coli*, *Candida albicans* and *Saccharomyces cerevisiae*
I. K. SAWER, M. I BERRY, M. W. BROWN & J. L. FORD

322 Inhibition of *Listeria* in dry fermented sausages by the bacteriocinogenic *Lactobacillus sake* CTC494
M. HUGAS, M. GARRIGA, M. T. AYMERICH & J. M. MONFORT

331 Selenium and *Lactobacillus* species
M. R. CALOMME, K. VAN DEN BRANDEN & D. A. VANDEN BERGHE

341 A method for estimation of population densities of ice nucleating active *Pseudomonas syringae* in buds and leaves of mango
F. M. CAZORLA, L. OLALLA, J. A. TORÉS, A. PÉREZ-GARCÍA, J. C. CODINA & A. DE VICENTE

347 Methicillin-resistant *Staphylococcus aureus* subtyping: interest of combined antibiotyping and esterase electrophoretic typing
N. MANGENEY, A. BAKKOUCH, J.-L. PONS, C. DUPEYRON, P. NIEL & G. LELUAN

Number 4, October 1995

353 The effect of sodium chloride concentration and pH on the growth of *Salmonella typhimurium* colonies on solid medium
A. L. McKAY & A. C. PETERS

360 Efficiency of different enrichment and isolation procedures for the detection of *Salmonella* serotypes in edible offal
G. ARROYO & J. A. ARROYO

368 Some factors affecting the airborne survival of bacteria outdoors
B. A. HANDLEY & A. J. F. WEBSTER

379 Response of *Saccharomyces cerevisiae* strains to antineoplastic agents
A. DELITHEOS, I. KARAVOKYROS & E. TILIGADA

384 Ribotyping and plasmid profiling of *Vibrio anguillarum* serovar O2 and *Vibrio ordalii*
T. TIAINEN, K. PEDERSEN & J. L. LARSEN

393 Antibacterial polyphenols from olive oil mill waste waters
R. CAPASSO, A. EVIDENTE, L. SCHIVO, G. ORRU', M. A. MARCIALIS & G. CRISTINZIO

399 Rapid assessment of physiological status in *Escherichia coli* using fluorescent probes
J. PORTER, C. EDWARDS & R. W. PICKUP

409 Physiological responses of a methylotrophic bacterium after sudden shifts from C-limited chemostat to C-excess batch growth conditions
F. M. GÍRIO, M. T. AMARAL-COLLAÇO & M. M. ATTWOOD

417 Expression of a cloned cellulase/xylanase gene from *Prevotella ruminicola* in *Bacteroides vulgatus*, *Bacteroides uniformis* and *Prevotella ruminicola*
A. S. DANIEL, J. MARTIN, I. VANAT, T. R. WHITEHEAD & H. J. FLINT

425 Strain-specific fingerprints of *Rhizobium galegae* generated by PCR with arbitrary and repetitive primers
S. SELENSKA-POBELL, L. GIGOVA & N. PETROVA

432 Biological indicators for low temperature steam and formaldehyde sterilization: the effect of defined media on sporulation, growth index and formaldehyde resistance of spores of *Bacillus stearothermophilus* strains
A. M. WRIGHT, E. V. HOXEY, C. J. SOPER & D. J. G. DAVIES

439 Evaluation of the MicroScan enzyme-based system for the identification of foodborne yeasts
T. DEAK & L. R. BEAUCHAT

447 Purification and characterization of the major β-1,4-endoglucanase from *Thermomonospora curvata*
SHIH-BIN LIN & F. J. STUTZENBERGER

454 Identification and characterization of *Streptococcus thermophilus* strains by pulsed-field gel electrophoresis
R. BOUTROU, D. THUAULT & C. M. BOURGEOIS

459 Bioremediation of colour of methyl violet and phenol from a dye-industry waste effluent using *Pseudomonas* spp. isolated from factory soil
S. SARNAIK & P. KANEKAR

470 A note on the development of a non-aldehyde fixation technique for examining spores of *Bacillus subtilis* under the electron microscope
A. G. KNOTT, A. C. HANN & A. D. RUSSELL

475 *In vitro* inhibition of *Helicobacter pylori* NCTC 11637 by organic acids and lactic acid bacteria
P. D. MIDOLO, J. R. LAMBERT, R. HULL, F. LUO & M. L. GRAYSON

480 Letters to the Editor

Number 5, November 1995

483 Quantitative structure-activity relationship study on the inhibitory effect of some herbicides on the growth of soil micro-organisms
S. NEMES-KÓSA & T. CSERHÁTI

492 Development of resistance to biocides during sporulation of *Bacillus subtilis*
A. G. KNOTT, A. D. RUSSELL & B. N. DANCER

499 Cultural conditions for production of glucoamylase from *Lactobacillus amylovorus* ATCC 33621
J. A. JAMES & B. H. LEE

506 The antimicrobial activity of lactic acid bacteria from fermented maize (kenkey) and their interactions during fermentation
A. OLSEN, M. HALM & M. JAKOBSEN

513 Survival of the phytopathogen *Erwinia carotovora* subsp. *carotovora* in sterile and non-sterile soil, sand and their admixture
R. ARMON, C. DOSORETZ, A. YOIRISH, G. SHELEF & I. NEEMAN

519 Stimulation or inibition of growth of the unicellular alga *Pavlova lutheri* by bacteria isolated from larval turbot culture systems
P. D. MUNRO, H. A. McLEAN, A. BARBOUR & T. H. BIRKBECK

525 Random amplified polymorphic DNA and restriction enzyme analysis of PCR amplified rDNA in taxonomy: two identification techniques for food-borne yeasts
M. M. BALEIRAS COUTO, J. T. W. E. VOGELS, H. HOFSTRA, J. H. J. HUIS IN'T VELD & J. M. B. M. VAN DER VOSSEN

536 Characterization and species recognition of *Lactobacillus plantarum* strains by restriction fragment length polymorphism (RFLP) of the 16S rRNA gene
M.-L. JOHANSSON, G. MOLIN, B. PETTERSSON, M. UHLÉN & S. AHRNÉ

542 Relationship between colonial surface and density on agar plate
C. CHAPUIS, L. ROSSO & J. P. FLANDROIS

551 Degradation and fermentation of fructo-oligosaccharides by oral streptococci
R. HARTEMINK, M. C. J. QUATAERT, K. M. J. VAN LAERE, M. J. R. NOUT & F. M. ROMBOUTS

558 Assessment of biological activity and fate of organic compounds in a reactor for the measurement of biodegradable organic carbon in water
F. RIBAS, J. FRÍAS, F. VENTURA, L MOHEDANO & F. LUCENA

569 Polymerase chain reaction for verification of fluorescent colonies of *Erwinia chrysanthemi* and *Pseudomonas putida* WCS358 in immunofluorescence colony staining
J. M. VAN DER WOLF, J. R. C. M. VAN BECKHOVEN, PH. M. DE VRIES, J. M. RAAIJMAKERS, P. A. H. M. BAKKER, Y. BERTHEAU & J. W. L. VAN VUURDE

578 Dyes as fungal inhibitors: effect on colony enumeration
M. R. BRAGULAT, M. L. ABARCA, G. CASTELLA & F. J. CABAÑES

Number 6, December 1995

583 Degradation of fructans by epiphytic and inoculated lactic acid bacteria and plant enzymes during ensilage of normal and sterile hybrid ryegrass
R. J. MERRY, A. L. WINTERS, P. I. THOMAS, M. MÜLLER & T. MÜLLER

592 Serological characterization of potato isolates of *Erwinia carotovora* subsp. *atroseptica* and subsp. *carotovora* using polyclonal and monoclonal antibodies
B. ALARCÓN, M. T. GORRIS, M. CAMBRA & M. M. LÓPEZ

603 Influence of salad constituents on growth of *Pseudomonas marginalis*: a predictive microbiology approach
J. M. MEMBRÉ, D. GOUBET & M. KUBACZKA

609 Biological activity of polyketide pigments produced by the fungus *Monascus*
L. MARTÍNKOVÁ, P. JŮZLOVÁ & D. VESELÝ

617 Degradation activity of adhered and suspended *Pseudomonas* cells cultured on 2,4,6-trichlorophenol, measured by indirect conductimetry
M. A. ASCÓN-CABRERA, D. B. ASCÓN-REYES & J. M. LEBEAULT

625 Genetic and functional analysis of novobiocin non-producing mutants of *Streptomyces niveus*
J. H. HOGGARTH, K. E. CUSHING & D. A. RITCHIE

631 Continuous deacidification of wine by immobilized *Schizosaccharomyces pombe* cells: evaluation of malic acid degradation and analytical profiles
M. CIANI

635 Detection of *Escherichia coli* in potable water using direct impedance technology
K. O. COLQUHOUN, S. TIMMS & C. R. FRICKER

640 Malolactic fermentation of wine: study of the influence of some physico-chemical factors by experimental design assays
H. VAILLANT, P. FORMISYN & V. GERBAUX

651 The effect of temperature on the degradation of triglycerides by a pseudomonad isolated from milk: free fatty acid accumulation as a balance between rates of triglyceride hydrolysis and fatty acid consumption
D. B. McKAY & I. R. BEACHAM

657 Production of feruloyl/ρ-coumaroyl esterase activity by *Penicillium expansum*, *Penicillium brevicompactum* and *Aspergillus niger*
J. A. DONAGHY & A. M. McKAY

663 Influence of pH and lactic acid concentration on *Clostridium tyrobutyricum* during continuous growth in a pH-auxostat
I. THYLIN, P. SCHUISKY, S. LINDGREN & J. C. GOTTSCHAL

671 Continuous production of bacteriocins, brevicin, nisin and pediocin, using calcium alginate-immobilized bacteria
J. WAN, M. W. HICKEY & M. J. COVENTRY

677 Characterization of two virulent *Lactobacillus fermentum* bacteriophages isolated from sour dough
R. FOSCHINO, F. PERRONE & A. GALLI

684 Efflux of ions and ATP depletion induced by pediocin PA-1 are concomitant with cell death in *Listeria monocytogenes* Scott A
Y. CHEN & T. J. MONTVILLE

691 Index